



Faculty of Medicine
Suez Canal University

Pharmacology Department
Program Specification- MSc

PROGRAM SPECIFICATIONS

Program Title:

Master Degree of
Pharmacology

Code:

PCPC



Program Specification

A- Basic Information

1- Program Title: **Master Degree of Pharmacology**

2- Program Type: **Single** **Double** **Multiple**

3- Department (s): **Clinical Pharmacology Department**

4- Coordinator: Dr. Mona Kamal Tawfik

5- External Evaluator(s) :

6- **Date of specification approval:** The bylaws of the Master program in Pharmacology in the Faculty of Medicine, Suez Canal University were approved by the Supreme Council of Universities in 2016.

7-**Date of specification revision approval:** February 2018.

8- **Number of credit points for this degree: 120 CP**

B- Professional Information

1- Program Aim

- Discuss the concept of general pharmacology including the concepts of pharmacodynamics and pharmacokinetics in rationale drug prescribing
- Analyze the concept of drug interactions in rational drug prescribing
- Explain the pharmacological effects of drugs affecting the different organs
- Discuss the role of gene therapy in different diseases.
- Practice experiments on isolated organs and on whole animals

2- Intended Learning Outcomes (ILOs) of the program

a- Knowledge and Understanding:

By the end of this program, participants should be able to:

a1-Explain the concept of drug interactions in rational drug prescribing.

a2- Interpret the effect of different drugs on cellular , organ , system and the whole body.

a3- Comment on drug usage in extremes of ages and in different chronic diseases.

a4- Interpret all relevant information resources to acquire and evaluate evidence-based information.



a5- Execute knowledge base in the basic and clinical sciences necessary for effective consultation in treatment & management interventions

b- Intellectual Skills

By the end of this program, participants should be able to:

- b1. Apply problem solving skills.
- b2. Practice continuous self learning and self evaluation skills.
- b3. Interpret and analyze data.
- b4. Practice critical thinking and problem solving
- b5. Formulate a research hypothesis based on evidence and apply the appropriate methods to assess the validity of this hypothesis.

c- Professional and Practical Skills

By the end of this program, participants should be able to:

- c1. Criticize rational drug in certain disease.
- c2. Comment on the liver and renal conditions in prescribing drugs.
- c3. Practice combined drugs without unwanted drug interaction and side effects.
- c4. Evaluate the effects of new agents on experimental animals

d- General and Transferable Skills

By the end of the program, participants should be able to:

- d.1 Practice presentation skills
- d.2 Evaluate subordinates, peers & program
- d.3 Argue different ideas effectively
- d.4 Manage time and resources and set priorities
- d.5 Practice effective teaching and mentor to others
- d.6 Practice working effectively within a team.
- d.7 Practice efficient Information and Communication Technology (ICT) skills
- d.8 Practice continuous self learning skills.

3- Academic Standards

3a - External References for Standards (Benchmarks)

- The generic Academic Reference Standards (ARS) of NAQAAE for Postgraduate

3b - Comparison of Provision to External References (attached)

- Some unique courses were suggested and introduced during assessment of the current situation and the needs assessment achieved during preparation for the program.



4- Curriculum Structure and Contents

4a- Program duration: the program lasts for a minimum of 2 academic years and maximum 5 years, as specified in the internal bylaws for postgraduate studies based on credit points system in the Faculty of Medicine, Suez Canal University approved on February 7th, 2016.

4b- Program structure:

Master Program Credit points (CP) structure:

Total needed credit points for getting master degree 120 CP

The program consists of **First part 30 CP, Thesis 30 CP, and Second part 60 CP**

1. The first part of the program: 30 CP, its duration (15 weeks) for one academic semester. It includes
 - a. A course in Research Methodology planned and held in the Community Medicine Department of the Faculty of Medicine, Suez Canal University. This part includes 4 CP.
 - b. A courses in Research ethics planned and held in the Forensic and Toxicology Department of the Faculty of Medicine, Suez Canal University. This part includes 2 CP.
 - c. One elective course, the students should select one elective among six courses. This part includes 2 CP.
 - d. The specialized courses in Physiology, planned and held in the Physiology Department. It includes 12 CP.
 - e. The specialized courses in Biochemistry, planned and held in the Biochemistry Department. It includes 10 CP.
2. Master thesis: 30 CP, not included in the total marks for master degree, the candidate has the right to register the thesis protocol after 6 months from the degree registration. The thesis defense is allowed after 6 months from the date of the faculty council approval on the thesis protocol and passing the first part exam.
3. The second part of the program: 60 CP, its duration (45 weeks) for 3 consecutive academic semesters. The second part comprises the specialized courses in Pharmacology, planned and held in the Pharmacology Department. This part lasts for 1.5 years ending by written and practical exams.

4bi- No. of hours per week: 2 CP/week which equivalent 50 hours/ week, including lectures, student prepared presentations, applied cases , self-learning and hands-on training.

4bii- No. of credit Points: the Master program is 120 Credit Points

Every credit point include 25 working hour (30% = 7 hours for face to face learning activities, and 70% =18 hours for self-learning activities).



5-Program Courses

5.1- Level/Year of Program: 1st part MSc

a. Compulsory

Courses			Assessment				
Code No.	Course Title	No. of Credit points	Written Exam			Oral exam	Practical or clinical Exam
			No of Papers	Durati on	Marks		
RB	Research methodology and Biostatistics	4	1	2 hours	80		
RE	Research Ethics	2	1	1 hour	40		
PCPC01	Physiology course	12	1	3 hours	160	30	50
PCPC02	Biochemistry course	10	1	3 hours	150	50	
E	Elective Course*	2	1	1 hour	40		
Total		30 credit points			600 marks**		

***E: Student should select one course of the following as an elective course:**

One elective course has 2 CP. The students should select one elective in first part of the Master degree

E01	Evidence Based medicine	(Community Department)
E02	Scientific Writing	(Medical Education Department)
E03	Quality in Medical Education	(Medical Education Department)
E04	Infection Control	(Microbiology Department)
E05	Critical Appraisal	(Community Department)
E06	Communication Skills	(Medical Education Department)

****Every credit point equal 20 marks**



5.2- Level/Year of Programme: 2nd part MSc
a. Compulsory

Courses			Assessment					
Code No.	Course Title	No. of Credit points	Written Exam			Oral exam	Practical or clinical Exam	Continues assessment *(Portfolio)
			No of papers	Durations	Marks			
PCPC03	• Advanced Course in applied pharmacology and therapeutics	30	2	3 hours For each paper	165 for each paper	110	330	330
	• Practical training in Advances of Practical Pharmacology	25						
	***Scientific activities	5 (not included in the total marks)						
Total		60 credit points				**1100 score		

*Portfolio scores distributed in the different parts of the portfolio and its total score included among the total mark of the second part

**Every credit point equal 20 marks

***Scientific activities are not included in the total marks

5.3- **Thesis:** A faculty senior & junior supervisor from the staff members are nominated by the department council to prepare a proposal of the thesis protocol after the selection of a subject that is complementary to the research plans of the department. Data collection, methodologies, study question, time table, ethical considerations and budget are formulated by the candidate under guidance of his supervisors into a research project. The research protocol is then peer reviewed by two different staff members nominated by the head of the department who share their ideas and comments with the supervisors to reach to the final form. The research protocol is discussed then openly in one of the department councils to be approved and diverted to the faculty research committee where it is subjected to a critical appraisal to meet the research basic standards set by the committee. The final approvals of the research protocol are then issued by the committee of post graduate studies, the Faculty and University Council to be registered. The



candidate has the right to register his/her thesis protocol after 6 months from the degree registration. The first time for thesis defense after 6 months from the date of the faculty council approval on the thesis protocol and passing the first part exam.

N.B. **Thesis represents 30 credit points not included in the total mark for master degree.**

6-Program Admission Requirements

- The program accepts candidates with Bachelor degree in Medicine and Surgery with minimum good grade & very good.
- Registration for the program opens 2 times/year, according to the internal bylaws for postgraduate studies of the Faculty of Medicine, Suez Canal University.

7- Student Assessment Methods

- 7.1 Written (MEQ)** to assess the cognitive domain.
- 7.2 MCQs** to assess the cognitive domain
- 7.3 Oral Viva Cards** to assess higher cognitive and attitude domains.
- 7.3 Observations** to assess practical and presentation skills.
- 7.4 Portfolio** to assess the cognitive, psychomotor and the affective domains.

8- Weighting of Assessments

Total marks for master degree 1700

Type of exam

First part (30 credit points= 600 mark)

- Written exam 470
- Oral and practical exam 130
- **Total** 600

Second part (60 credit points including 5 credit points not included in the total marks =1100 mark)

- Oral exam 110
- Practical exam 330
- Written exam 330
- Portfolio 330
- **Total** 1100

Total of the Master degree 1700



9- Regulations for Progression and Program Completion

The regulations for program completion follow the regulations of Master degree of medical education in the Faculty of Medicine, Suez Canal University approved by the Supreme Council of Universities.

First part

Passing level 60% of total marks of the exam

At least 50% passing level of the total written exam marks

Second part

Passing level 60% of total marks of the exam

Passing level 60% is prerequisite for MSC degree

Thesis/Assay

Passing thesis defense is prerequisite for getting MSc. Degree

10-Evaluation of Program Intended Learning Outcomes (ILOs)

Evaluator	Tool	Sample
1- Postgraduate students	Needs assessment questionnaires	Random sample of participants
2- Alumni	Self-administered questionnaires	Comprehensive sample
3- Stakeholders	Self-administered questionnaires	Random sample
4-External Evaluator(s) (External Examiner(s))	External audit of the program specifications	
5- Other		

Head of Pharmacology Department
Assistant Prof. Mona Kamal Tawfik

Date: